

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (current amended) In a computer system, a method comprising the steps of:
providing a PSDL parser capable of automatically, without user intervention, extracting a print job requirements from a PSDL file;
automatically, without user intervention, ~~converting a print job stored in a PSDL file into~~ creating a proposed workflow for a printshop using said print job requirements extracted by said PSDL parser and resource knowledge recording resources in said printshop.
2. (currently amended) The method of claim 1 further comprising the step of:
executing said print job in said printshop using said proposed workflow, wherein said workflow is designed to operate within an environment having a set of autonomous cells and incorporates:
mapping said print jobs to one or more of said autonomous cells;
dividing said print jobs into sub-jobs within autonomous cells; and
invoking one of a pull-type, push-type or combination push/pull-type control policy to keep jobs flowing through the print shop even as random disruptive events occur.
3. (current amended) The method of claim 1 wherein said PSDL parser traverses ~~said print job in said PSDL file~~ and extracts the print job resource requirements for said print job from said PSDL file and forwards said print job requirements to a workflow schedule module, said workflow schedule module compares said print job requirements against available resources of the print shop and maps the sequence of steps required to perform the print job to available machines and operators in the printshop as indicated by a printshop resource availability module.

4. (current amended) The method of claim 1 wherein said resource knowledge includes information regarding the job costs and availability in said printshop of available machines, machine operators, work-in-progress and inter-process storage buffer levels and materials required to process said print job.
5. (original) The method of claim 1 wherein said proposed workflow is used to generate a job cost estimate.
6. (original) The method of claim 5 wherein said job cost estimate includes material costs and labor costs.
7. (original) The method of claim 6 wherein said proposed workflow and said job cost estimate are transmitted to a job submitter that submitted the print job for approval prior to processing said print job.
8. (original) The method of claim 7, further comprising the steps of:
 - said job submitter substituting new materials to replace materials included in said proposed workflow;
 - creating a new proposed workflow which includes said new materials;
 - generating a new job cost estimate for said new proposed workflow;
 - and
 - transmitting said new job cost estimate and said new proposed workflow to said job submitter for approval.
9. (original) The method of claim 7, further comprising the steps of:
 - said job submitter substituting new machines to replace machines included in said proposed workflow;
 - creating a new proposed workflow which includes said new machine s;
 - generating a new job cost estimate for said new proposed workflow;
 - and
 - transmitting said new job cost estimate an said new proposed workflow to said job submitter for approval.

10. (original) The method of claim 7, further comprising the steps of:
said job submitter substituting new machine operators to replace operators included in said proposed workflow;
creating a new proposed workflow which includes said new machine operators;
generating a new job cost estimate for said new proposed workflow;
and
transmitting said new job cost estimate and said new proposed workflow to said job submitter for approval.
11. (original) The method of claim 1, wherein said PSDL file is a Print Production Format (PPF) file.
12. (original) The method of claim 1, wherein said PSDL file is a JDF file.
13. (original) The method of claim 1, wherein said PSDL file is a PCX file.
14. (current amended) In a computer system, a method comprising the steps of:
submitting a print job to a printshop having resources, said print job stored in a printshop job description language (PSDL) file; and
automatically, without user intervention, extracting print job requirements from said PSDL file;
comparing said print job requirements, including material and labor requirements, from said PSDL file against available resources, status of the work-in-progress, current schedule and available materials in the printshop; and
automatically, without user intervention, converting said print job stored in said PSDL file into creating a proposed workflow for said printshop from said print job requirements and from printshop resource knowledge resources, said proposed workflow dividing said print job into components and mapping said components of said print job to available resources of said printshop so as to set the buffer space between machines to optimal levels while processing said print job.

15. (original) The method of claim 14 further comprising the step of:
executing said print job in said printshop using said proposed
workflow.

16. (current amended) The method of claim 14 wherein said resource
knowledge includes information regarding job costs and availability in said printshop
of machines, machine operators and materials used in processing said print job.

17. (original) The method of claim 14 wherein said resource knowledge
further includes information regarding operational speed and capacity of machines
in said printshop used in processing said print job.

18. (current amended) In a computer system containing a network interface,
said system connected to ~~the~~ a network via said network interface, a method
comprising the steps of:

providing a print job submitted by a job submitter and stored in a print
job description language (PSDL) file located on a remotely located computer system
that is connected to the network;

sending said print job stored in said PSDL file from said remotely
located computer system to a printshop via the network and said network interface;
automatically, without user intervention, extracting print job
requirements from said PSDL file;

comparing said print job requirements against available resources in
the printshop; and

automatically, without user intervention, converting said PSDL
intecreating a proposed workflow for said printshop using a PSDL parser and
resource knowledge regarding resources in the printshop, wherein said available
resources are arranged into autonomous cells and said workflow maps the print job
to one or more of said autonomous cells.

19. (currently amended) The method of claim 18 further comprising the step of:
executing said print job in said printshop using said proposed workflow,
wherein said workflow is designed to operate within an environment having a set of
autonomous cells and incorporates:
mapping said print jobs to one or more of said autonomous cells;
dividing said print jobs into sub-jobs within autonomous cells; and
invoking one of a pull-type, push-type or combination push/pull-type
control policy to keep jobs flowing through the print shop even as random disruptive
events occur.
20. (original) The method of claim 18 wherein said network is the Internet.
21. (current amended) The method of claim 18 wherein said resource
knowledge includes information regarding job costs and availability in said printshop
of machines, machine operators and materials used in processing said print job.
22. (original) The method of claim 18 wherein said proposed workflow is used
to generate a job cost estimate.
23. (original) The method of claim 18 wherein said job cost estimate includes
material costs and labor costs.
24. (original) The method of claim 23 wherein said proposed workflow and
said job cost estimate are transmitted to said job submitter via the Internet for
approval prior to said print job being processed.
25. (original) The method of claim 24, further comprising the steps of:
generating a new proposed workflow and job cost estimate in
response to said job submitter rejecting said proposed workflow and said job cost
estimate.

26. (current amended) In a computer system, a medium holding computer-executable instructions for a method, said method comprising the steps of:

providing a PSDL parser capable of automatically, without user intervention, extracting a print job requirements from a PSDL file;

automatically, without user intervention, ~~converting a print job stored in a PSDL file into~~ creating a proposed workflow for a printshop using said PSDL parser and resource knowledge recording resources in said printshop.

27. (current amended) A medium for use with a computer system, said medium holding computer-executable instructions for a method, said method comprising the steps of;

submitting a print job to a printshop having resources, said print job stored in a printshop job description language (PSDL) file; ~~and~~

automatically, without user intervention, extracting print job requirements from said PSDL file;

automatically, without user intervention, comparing said print job requirements against available resources, work-in-progress, current schedule and available materials in the printshop; and

automatically, without user intervention, ~~converting said print job stored in said PSDL file into~~ creating a proposed workflow for said printshop, said proposed workflow dividing said print job into components and mapping said components of said print job to available resources of said printshop so as to set the buffer space between machines to optimal levels while processing said print job.